Setting the Action Agenda To Achieve National Asthma Objectives

With the start of 2001, the National Asthma Education and Prevention Program (NAEPP) stands poised to assume an important leadership role in the Nation's fight against the asthma epidemic. Three new Federal initiatives in 2000 have set the course for the NAEPP action agenda: the Children's Health Act of 2000 was passed by Congress; Healthy People 2010 (HP 2010) was launched; and a report, Action Against Asthma: A Strategic Plan for the Department of Health and Human Services, was released. These initiatives provide a framework for focusing attention on asthma and addressing challenges and opportunities. The NAEPP will play a key role in coordinating the efforts of the many groups nationwide who are committed to reducing the burden of asthma.

THE CHILDREN'S HEALTH ACT OF 2000

The Children's Health Act of 2000 expands research, prevention, and treatment efforts targeted at children's diseases, and Title V-Asthma Services for Children focuses on childhood asthma. Under this Act, the NAEPP Coordinating Committee has been charged with two important tasks: providing an annual report to Congress on all Federal asthma activities, and developing, in consultation with appropriate Federal agencies and professional and voluntary health organizations, recommendations to Congress regarding ways to strengthen and improve the coordination of asthma-related Federal activities.

The NAEPP already has an apparatus in

place-the Federal Liai-

son Group on

Asthma

(FLGA)—to effectively identify all Federal programs that carry out asthma-related activities. The FLGA is an NAEPP subcommittee that meets at least twice a year to share information on agency activities on asthma. The FLGA will work in consultation with the full NAEPP Coordinating Committee to gather input and develop recommendations on ways to strengthen the coordination of Federal asthma-related activities. An updated inventory of activities has been completed. During the summer, a draft of the report and recommendations will be circulated for review by the Coordinating Committee, and a final report and recommendations will be submitted to Congress in October 2001.

Other provisions of Title V authorize Federal grants to provide comprehensive asthma services to children, equip mobile health care clinics, conduct patient and family education on asthma management, and identify children eligible for children's health programs. In addition, the Act amends the Preventive Health and Health Services Block Grant program to provide for systems to reduce asthma prevalence by reducing the level of exposure to allergens among urban populations.

HEALTHY PEOPLE 2010 AND ACTION Against Asthma

HP 2010 is the Department of Health and Human Services' blueprint for achieving a healthier Nation in the next decade. The HP 2010 agenda has two overarching goals: increasing quality and years of healthy life and eliminating health disparities. Asthma is covered in the Respiratory Dis-

eases chapter of

(continued on page 3)

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Letter From the Director

HEEDING THE "CALL FOR ACTION" TO COMBAT ASTHMA

This is an exciting time for the NAEPP and its partners as they play a key role in implementing several new Federal initiatives to fight asthma. As mandated by the Children's Health Act of 2000, the NAEPP will be responsible for producing an annual report for Congress on Federal asthma activities. In addition, the NAEPP has launched an array of activities designed to achieve the Department of Health and Human Services' Healthy People 2010 objectives for asthma and the priorities set forth in its Action Against Asthma strategic plan. The cover story highlights some of the NAEPP activities that are designed to meet the Federal goals.

The spotlight on Asthma Coalitions (page 6) describes an important NAEPP project that was launched in 2000 to respond to a key HP 2010

priority: working with local community groups to mobilize community resources for a comprehensive, culturally competent approach to controlling asthma among high-risk populations. The seven Asthma Coalition Contracts focus on communities at greatest risk for asthma morbidity and mortality, with approaches that are designed to meet the unique needs of their communities. These awards will help to eliminate health disparities and increase the utilization of the EPR-2 guidelines.

The NAEPP is also enthusiastic about its strong infrastructure of individuals and organizations that have come together in the NHLBI Health Information Network (HIN), which is accessed through the NHLBI HP 2010 Gateway (see page 9). By joining the NHLBI HIN, busy health

professionals and community program planners can take advantage of 21st century technologies that offer networking opportunities and resources as well as new sources of information about asthma.

The year 2001 promises many new challenges and opportunities in the fight against asthma. With new initiatives and a framework for action, now is the time to join with NAEPP in the effort to achieve the HP 2010 goals and to lessen the burden of asthma in our Nation.

C. Lundour

Claude Lenfant, M.D. Director, NHLBI

("Setting the Agenda" continued from page 1)

HP 2010, with information on asthma issues and trends, disparities, and opportunities related to achieving the objectives for asthma (see box).

Specific steps for achieving these objectives include providing written care plans to all people with asthma; instructing patients on proper use of inhalers; educating patients about early signs and symptoms of asthma episodes and how to respond; prescribing and monitoring the use of appropriate medications; and helping persons with asthma to assess and reduce their exposure to environmental risk factors at home, school, and work. For further details about the HP 2010 objectives, visit http://hin.nhlbi.nih.gov and click on Respiratory.

Action Against Asthma, a report issued by the Department, is an ambitious strategy for tackling asthma over the next 5 years. This report identifies urgent needs and top priorities for the Federal Government's investment in the fight against asthma (see box on page 4). The report calls for a new emphasis on public health practice for asthma to support partnerships that will increase dissemination and use of information by communities, health care providers, and patients and their families. The Action Against Asthma document is available at

http://aspe.hhs.gov/sp/asthma.

WORKING TOGETHER TO MEET THE CHALLENGE

The NAEPP Coordinating Committee, composed of 39 member organizations (see box on page 5) and other partners, is marshalling efforts to carry out its responsibilities under the Children's Health Act and to shape its action agenda to address the national priorities identified by HP 2010 and Action Against Asthma. The ultimate goal of the NAEPP is to enhance the quality of life for patients with asthma and decrease asthma-related morbidity and mortality.

"Healthy People 2010 and Action Against Asthma are the Federal

Government's call to action—and their recommendations are ones that the NAEPP is fully armed to help implement," says Diana Schmidt, NAEPP Coordinator. "The NAEPP is excited about moving forward and is encouraged by the number of active partners who have taken a role in the effort to combat the growing asthma problem."

The HP 2010 objectives for asthma provide an excellent planning framework for the programs and activities being planned and implemented by the NAEPP. Strengthening this planning framework are the underlying strategies used by the NAEPP to develop new initiatives. "Initial strategies emphasized information dissemination and professional and patient education (primarily in clinical practice settings)," says Ms. Schmidt. "But information dissemination alone does not put information into practice. Current strategies, therefore, look more toward building confidence and skills aimed at changing patient and physician behavior; addressing systemsrelated barriers to guidelines implementation; and cultivating communi-

ty-based solutions for achieving the HP 2010 objectives." Some of the NAEPP activities that address the HP 2010 objectives are mentioned below.

Increasing the Use of the **EPR-2 Guidelines by Health Care Providers**

One of the NAEPP's main charges is to encourage health care providers to use the NAEPP clinical practice guidelines presented in the Expert Panel Report 2: Guidelines for the Diagnosis and Management of Asthma (EPR-2), which was released in February 1997. Companion documents for health professionals include a practical guide with patient handouts, as well as separate guides for pediatricians, pharmacists, and nurses. The NAEPP is working with the American Association for Respiratory Care to develop an asthma disease management guide for respiratory care practitioners, and a working group of the Professional Education Subcommittee is contributing to the development of a monograph on effective emergency department (ED) strategies for

(continued on page 4)

HEALTHY PEOPLE 2010 OBJECTIVES FOR ASTHMA

- · Reduce asthma deaths.
- Reduce hospitalizations for asthma.
- Reduce hospital emergency department visits for asthma.
- Reduce activity limitations among persons with asthma.
- Reduce the number of school or work days missed by persons with asthma due to asthma.
- Increase the proportion of persons with asthma who receive formal patient education, including information about community and selfhelp resources, as an essential part of the management of their condition.
- Increase the proportion of persons with asthma who receive appropriate asthma care according to the NAEPP Expert Panel Report 2: Guidelines for the Diagnosis and Management of Asthma (EPR-2).
- Establish in at least 15 states a surveillance system for tracking asthma death, illness, disability, impact of occupational and environmental factors on asthma, access to medical care, and asthma management.

("Setting the Agenda" continued from page 3)

ACTION AGAINST ASTHMA-URGENT NEEDS TOP PRIORITIES FOR INVESTMENT

- 1. Determine the causes of asthma and develop interventions to prevent its onset.
- Improve understanding of early life origins of asthma.
- Study gene-environment interactions and links to characteristics of asthma.
- Investigate adult onset of asthma.
- Test strategies for prevention.
- 2. Reduce the burden of asthma for people with the disease.

Promote wider use of current knowledge to diagnose and manage asthma: public health actions.

- Help health care providers practice up-to-date asthma
- Educate patients and their families.
- Evaluate and address organizational barriers to quality care for asthma.
- Expand asthma control activities in community settings.
- Sustain support for state and local public health action.

Discover and develop improved means for managing asthma: research.

- Improve understanding of what makes asthma persistent
- Improve means of controlling triggers of asthma and allergic responses.
- Investigate the relationship between air pollutants and asthma.
- Investigate variations in patient response to asthma medications.
- Establish causes and risk factors of asthma fatalities.
- Develop noninvasive methods for diagnosis and disease monitoring.
- · Expand research on asthma in pregnancy.
- 3. Eliminate the disproportionate burden of asthma in minority populations and those living in poverty.
- Promote wider use of current knowledge to diagnose and manage asthma, focusing on minority and low-income populations.
- Improve access to quality care.
- Expand research on asthma in special population groups.
- Investigate access to care and evaluate quality.
- 4. Track the disease and assess effectiveness of asthma programs.
- Establish coordinated and systematic local, state, and national systems for asthma surveillance.
- Evaluate public health and health services interventions. Disseminate results.

asthma care. Another working group is planning a consultation with leading experts in guidelines implementation to advise on ways the NAEPP or individual member organizations can collaborate with other members of the health care community to increase the use of the EPR-2 guidelines. Recently, the NAEPP formatted the guidelines for use on a Palm OS® (operating system) hand-held device (page 10).

Employing Innovative Strategies at the Community Level

Reaching people with asthma in their communities is another important NAEPP goal. In March 2000, the NAEPP awarded contracts to seven asthma coalitions (see page 7) to implement a variety of community-based asthma programs targeting high-risk groups, including lowincome, minority, and rural populations. The coalitions will implement activities to eliminate disparities in asthma morbidity and mortality in their communities. Several coalitions are focusing on raising public awareness of asthma and facilitating asthma education. In addition, the NAEPP is working in partnership with the Robert Wood Johnson Foundation's Allies Against Asthma program, which will support community-based coalitions to improve pediatric asthma control efforts (see page 11).

Educating Patients and the Public

The NAEPP promotes the development, dissemination, and use of patient and family education materials. These materials can be viewed online or ordered through the NHLBI Online Catalog at http://emall.nhlbihin.net. The NAEPP partners with patient-oriented and advocacy organizations—including the Allergy and Asthma Network/Mothers of Asthmatics, Inc., Asthma and Allergy Foundation of America, and the American Lung Association—which produce educational materials targeting patients, parents, and children with asthma (see Partnership Activities, page 11). As coordinator in the United States for World Asthma Day, the NAEPP helps to promote special activities at the local level to draw attention to the global burden of asthma (see page 5).

Improving Communication Through Web-based Technologies

The NHLBI HP 2010 Gateway asthma portal is the NAEPP's key resource for Web-based information sharing with the asthma community. Enter the portal at

http://hin.nhlbi.nih.gov by clicking on Respiratory. Clicking on Communication will lead you to the Asthma Management Model System (AMMS), which offers up-to-date diagnosis and treatment options for asthma, as well as scientific literature on chronic asthma. Within the AMMS, click on the Asthma Coalition Exchange to reach a site that fosters information sharing and networking among community-based asthma coalitions.

"The NAEPP is proud to play a leadership role in coordinating the activities of many professional and voluntary organizations, Federal agencies, and local coalitions that are concerned with asthma," says Ms. Schmidt. "We look forward to working with our many partners to address the HP 2010's public health priorities, building on the strong foundation of current activities found under the NAEPP umbrella. Together we can make a difference."

National Asthma Education and Prevention Program (NAEPP) Member Organizations

Agency for Healthcare Research and Quality

Allergy and Asthma Network/Mothers of Asthmatics, Inc.

American Academy of Allergy, Asthma, and Immunology

American Academy of Family Physicians

American Academy of Pediatrics

American Academy of Physician Assistants

American Association for Respiratory
Care

American Association of Occupational Health Nurses

American College of Allergy, Asthma, and Immunology

American College of Chest Physicians

American College of Emergency Physicians

American Lung Association

American Medical Association

American Nurses Association

American Pharmaceutical Association

American Public Health Association

American School Health Association American Society of Health-System

American Society of Health-System
Pharmacists

American Thoracic Society

Association of State and Territorial
Directors of Health Promotion and
Public Health Education

Asthma and Allergy Foundation of America

Council of State and Territorial Epidemiologists

National Association of School Nurses

National Black Nurses' Association,

National Center for Chronic Disease Prevention, CDC

National Center for Environmental Health, CDC

National Center for Health Statistics, CDC

National Heart, Lung, and Blood Institute, NIH

National Institute of Environmental Health Sciences, NIH

National Institute for Occupational Safety and Health, CDC

NHLBI Ad Hoc Committee on Minority Populations

National Institute of Allergy and Infectious Diseases, NIH

National Medical Association

Society for Academic Emergency Medicine

Society for Public Health Education

U.S. Department of Education

U.S. Environmental Protection Agency

U.S. Food and Drug Administration

U.S. Public Health Service

The Nation Celebrates World Asthma Day

May 3, 2001, marked the date for the third annual World Asthma Day (WAD) celebration. This year's event was built on the success of WAD 2000 in which more than 80 countries joined together to bring attention to the growing global problem of asthma. The NAEPP is the official coordinator of WAD activities for the United States. In addition to promoting WAD activities of its member organizations and local asthma coalitions, the NAEPP developed a variety of support resources including

a video news release, short radio segments on asthma, an updated asthma data fact sheet, sample press releases and other materials, and a WAD Web site where participants registered their activities and accessed the NAEPP resources. For more information, please visit http://hin.nhlbi.nih.gov. Click on Respiratory, National Education Programs, NAEPP, and WAD.



In the Spotlight

ASTHMA COALITIONS FORGE LINKAGES TO COMBAT ASTHMA IN HIGH-RISK COMMUNITIES

In response to HP 2010, and addressing many of the objectives in *Action Against Asthma*, the NHLBI has awarded seven 3-year performance-based contracts to asthma coalitions to implement innovative model programs. The purpose of these projects is to improve asthma care in communities with exceptionally high asthma death rates. Each coalition is located in a Health Service Area (HSA) of at least 100,000 people with an age-adjusted asthma mortality rate of 2.5 or greater per 100,000 population. The coalition contracts are an important step in addressing health disparities and, it is hoped, will serve as the foundation for many similar programs in the future.

Representatives from the asthma coalitions—based in California, Washington, Illinois, Indiana, Arkansas, Georgia, and New York—gathered in March 2000 to lay the groundwork for projects that will address the HP 2010 overarching goal of eliminating racial and ethnic disparities in health care.

According to NHLBI Director Dr. Claude Lenfant, "The coalition contracts are important because they reach out to the community to reduce morbidity and mortality from asthma. While research has provided the means to

improve the diagnosis and treatment of asthma, we need active partners at the community level to apply more aggressively what we already know works." Diana Schmidt, Coordinator of the NAEPP adds, "The coalition contracts are part of NHLBI's plan to use a high-intensity approach that will tailor the EPR-2 guidelines to the practice environment and community level. This approach utilizes local networks to enhance the dissemination and utilization of science-based information that will lead to changes in knowledge, practice, and behavior."

Coalitions in Action

At their inaugural meeting, representatives from the seven asthma coalitions discussed goals, target audiences, coalition members, special challenges, strategies, projected outcomes, and issues of evaluation. While there were many common themes, it became clear that each program will apply unique strategies to address the particular needs of its community. The following descriptions of the seven coalition projects reveal their planned approaches as well as some of the progress they have made since receiving their awards.



The seven asthma coalitions are located in California, Washington, Illinois, Indiana, Arkansas, Georgia, and New York.

THE SEVEN ASTHMA COALITIONS

Arkansas Asthma Coalition/ Arkansas Children's Hospital Research Institute (Little Rock, Arkansas)

This project aims to improve asthma diagnosis and treatment in a rural population of low-income children (34 percent minority) in three medically underserved rural communities. The coalition will provide asthma education for primary care providers (PCPs) and their office staff, including face-toface instruction, outreach visits, and courses that offer CME credits. The implementation strategy will also include training of school personnel (nurses, coaches, administrators) on how to identify and refer high-risk children for appropriate asthma care.

Progress: The coalition created a package of tools to aid PCPs in the diagnosis and management of asthma. These include color-coded asthma screening and followup visit questionnaires, which are used in conjunction with a color-coded prescription chart to help PCPs determine the level of severity and serve as a quick reference for medications and dosages. The coalition also conducted focus groups with physicians, office staff, school nurses, and parents and will use the information gathered to tailor education sessions and tools for these audiences. Interview guides for these groups have been developed, and a survey questionnaire will be administered to caregivers of asthma patients.

Central California Asthma Project (Fresno, California)

The Central California Asthma Project targets low-income, rural communities with large populations of Hispanics and Southeast Asians, including transient farmworkers. The coalition will utilize asthma educators to educate health professionals and staff in schools and daycare centers, provide trainthe-trainer programs, and use community-based organizations to link the population to asthma education. It also will use the media to raise public awareness of asthma.

Progress: To raise asthma awareness, the coalition has provided numerous educational presentations to parents, the public, and school staff, and it has set up information booths at community events. The coalition also provided trainthe-educator training, "A is for Asthma" training, and presentations to health care personnel. On World Asthma Day, the coalition held poster contests for students, invited a "Mobile Asthma Care Van" to visit schools, and held an asthma screening at a local mall.

Chicago Asthma Consortium (Chicago, Illinois)

This coalition targets three highrisk urban communities with large African American populations and high asthma mortality. Its goal is to mobilize community leadership for policy changes and to increase public awareness and understanding of asthma. The coalition will identify gaps in knowledge and treatment, develop a marketing plan, and conduct a local media campaign. It will also conduct policy analysis and advocacy.

Progress: The consortium has developed a "Community Assets Inventory" that covers churches, schools, community groups, governmental agencies, and small businesses. In several communities, "mapping" has been completed and the "Asthma Knowledge Assessment Survey" has been administered. The information collected will be used to develop a marketing plan and materials. Each community partner is developing a team that will focus on asthma awareness and

identify appropriate media messages. Community asthma leaders are being identified and recruited.

Morehouse Safety-Net/ Practice-Based Research Network (Atlanta, Georgia)

This project provides physician education that combines techniques for changing clinical practice behavior, applying patient-centered approaches to education, and making office system changes in Federally funded community health centers (CHCs) at rural and urban sites. The main goal is to improve the delivery of asthma care to the low-income, minority patient population. The intervention will provide on-site training of clinicians and other staff; asthma kits and other resources; and technical assistance with redesigning medical records and other clinical systems. It will also provide health care providers with protocols, standing orders, and simple tools, such as checkoff lists.

Progress: The project has collected baseline data from patient charts and PCP profiles, including the type of asthma medications being prescribed. A stratification and randomization plan has been created for 32 sites, with the 16 intervention sites to receive training, resources, and documentation tools. Training for physicians and staff at intervention sites was pilottested and then was administered at one site. Training is scheduled for three intervention sites.

Asthma Community Development Group of Marion County, Inc. (Indianapolis, Indiana)

This project will provide comprehensive asthma education to school staff and students in innercity schools and Head Start programs. School staff will be educated about asthma and school management issues, and students will be educated about asthma symptoms, triggers of asthma attacks, and medications. Students will be screened for asthma during Head Start enrollment, and case managers will refer children with symptoms for followup. Public health nurses will be trained to assess the home environment and educate parents in how to reduce asthma triggers.

Progress: This coalition has focused on providing asthma education to elementary school students and screening Head Start students for asthma. An asthma educator works closely with county groups to provide asthma education for students in afterschool care in two counties. Parent education classes have begun, school nurses have received a train-the-trainer course, and all Head Start staff have received asthma education. The coalition also established a marketing committee, whose mission is to increase asthma awareness in the community, broaden membership, and develop a Web site.

Columbia University Asthma Coalition (New York, New York)

This project will serve adult asthma patients in low-income, predominantly Hispanic communities in Manhattan. Its goal is to reduce overutilization of emergency department (ED) services by asth-

ma patients by creating a long-term and culturally appropriate asthma management system. In this system, appointments will be made for asthma patients who have visited the ED. Their asthma knowledge and self-management skills will be assessed, and they will receive asthma education, a management plan, and referrals to social workers and visiting nurses, who will perform followup home visits and use an environmental assessment form to rate asthma trigger scores. The coalition will conduct community outreach to identify undiagnosed/ untreated asthma and provide oneon-one education.

Progress: The coalition has held seminars for PCPs to disseminate the EPR-2 guidelines. A toll-free asthma hotline has been established, bilingual (English-Spanish) asthma educators have been hired, and an asthma knowledge quiz has been developed. Asthma patients treated in the ED or admitted to inpatient service are contacted by phone to make followup appointments to the primary care clinic. Outreach workers have found that by using a prepared script when calling patients, they are able to increase followup appointment rates. Asthma outreach workers have participated in health fairs, and a poster is being developed for placement at community sites such as bus shelters.

Tacoma-Pierce County Asthma Prevention Partnership (Tacoma, Washington)

This coalition aims to reduce ED and unscheduled office visits for asthma in a low-income, ethnically diverse community. The coalition will integrate environmental education strategies with access to proper medical care. Asthma outreach workers and volunteers will make home visits, conduct environmental assessments, and provide education and action related to reducing environmental triggers of asthma in the home. The project also will provide education for families and health care providers and promote the use of personalized asthma management plans. A Medical Advisory Board will oversee the asthma outreach workers, advise staff, and review home visit protocols.

Progress: The coalition has recruited and trained volunteers to conduct home air quality assessment. An asthma outreach worker has been hired, and approval has been sought to allow home visits. The Medical Advisory Board has helped to gain acceptance in the medical community, and efforts have been made to expand the coalition's membership. Other activities included holding an Asthma Awareness Night at an elementary school and running an Asthma Fun Fair at the Tacoma Rainiers Baseball Club's Back to School Day.

The Asthma Coalition Extranet and Other Resources

The Asthma Coalition Extranet is designed to enhance communication among the seven coalitions and the NHLBI. The Extranet includes descriptions of the coalitions, progress reports, current announcements and news, descriptions of a variety of tools and resources, a staff directory, and lists of upcoming events.

Other NHLBI resources that can help the coalitions plan and implement their programs include NHLBI publications, new materials development, supplemental proposals for community-based workshops, and media support.

Future Activities

Future activities are planned to help measure progress and facilitate communication. For example, data and evaluation teams are being formed to develop methodologies to pool information from the projects in order to measure progress toward the HP 2010 objectives. Additionally, methods to determine the effectiveness of the various project strategies will be developed to determine whether the asthma coalitions result in improved asthma control in high-risk communities.

Special events planned for the next 2 years include online discussion boards and the hosting of asthma experts



AsthmaNet: Your Gateway to Asthma Information and Resources

The NHLBI designed its Web-based Healthy People 2010 Gateway to help professionals easily access and exchange information and resources for asthma management. By entering the gateway and joining the NHLBI Health Information Network (HIN), you become a partner in health, helping to implement the HP 2010 goals in your community.

Do you want to know how your community's asthma mortality rates compare with other communities? Would you like a listing of organizations involved in asthma prevention and management programs? Are you looking for a list of upcoming asthma conferences, meetings, and exhibits you may want to attend? Do you need continuing education credit? Do you want to communicate with other colleagues about important asthma issues? The answers to these needs-and more-are available at the NHLBI Healthy People 2010 Gateway at

http://hin.nhlbi.nih.gov, shown in Figure 1. Click on Respiratory to enter the respiratory portal shown in Figure 2.

The respiratory portal provides health professionals with a trustworthy, unbiased source of information about asthma management. As a busy asthma researcher, clinician, educator, or program manager, you will find this site a valuable resource.

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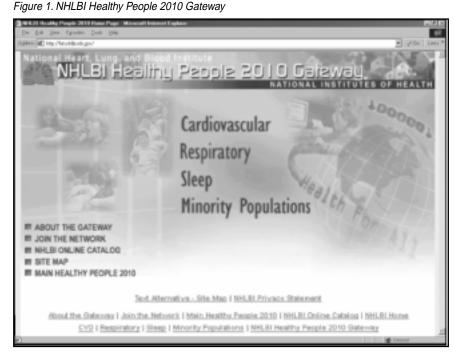
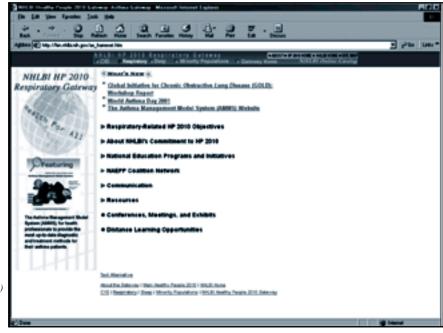
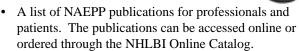


Figure 2. Respiratory Portal



The following is some of the information you can find on the Gateway.

- Asthma-related HP 2010 Objectives, including NHLBI's commitment to HP 2010 and NHLBI's performance goals and projects.
- Asthma mortality maps of the United States and local communities (see page 13).
- Asthma Management Model System—practical information for clinicians, patients, and public health professionals; scientific literature on chronic asthma.
- EPR-2 guidelines in Palm OS® format. The program can be downloaded to the Palm OS® hand-held device from http://hp2010.nhlbihin.net/as palm.htm.



The NAEPP Coalition Network, including the NAEPP Asthma Coalition Exchange (where you join the Community Asthma Coalition Listserve).

- The NHLBI HIN, a digital network of health professional partners who receive updates about new NHLBI programs, research findings, resources, and upcoming events (see box below).
- Past issues of AsthmaMemo, press releases, and news.
- A list of conferences, meetings, and exhibits.
- Distance Learning Opportunities, including Webcast events, continuing education, and tools and technologies, such as the EPR-2 guidelines slide set.

The respiratory portal will continue to grow and develop over the next months and years, and we value your input and ideas to help promote its development. We encourage you to make this your professional home on the Internet.

JOIN THE NHLBI HEALTH NFORMATION NETWORK

- · Imagine regularly receiving the latest information on asthma at no cost-right in your e-mailbox. This—and much more is now available on the new NHLBI HIN. It's all part of NHLBI's commitment to getting you our latest and best information as quickly and conveniently as possible.
- Through the NHLBI HIN, you receive e-mail messages advising you of available resources in your areas of interest: news about NHLBI publications, notifications of Webcast scientific conferences that you can access through your computer, news about new NHLBI discoveries and breaking news events, and interactive forums where you can network with other NHLBI HIN partners to share your experiences in disease prevention and health promotion.
- Joining the NHLBI HIN is simple. Just visit the NHLBI Healthy People 2010 Gateway at http://hin.nhlbi.nih.gov, and click on "Join the Network" at the bottom left. There is no cost.



Partnership Activities

ALLIES AGAINST ASTHMA PROGRAM UPDATE

Allies Against Asthma is a national program of the Robert Wood Johnson Foundation (RWJF) designed to support community-based coalitions to improve pediatric asthma control efforts. This demonstration effort will explore the development of new models of care integrating clinical, environmental, and community support strategies. The eight Allies Against Asthma grantees, announced on January 30, 2001, are the Albuquerque/Bernalillo County Asthma Coalition, Albuquerque, NM; Milwaukee Allies Against Asthma Coalition, Milwaukee, WI; Allies Against Asthma Workgroup Consortium for Infant and Child Health, Norfolk, VA; Philadelphia Allies Against Asthma Coalition, Philadelphia, PA; Long Beach Alliance for Children with Asthma, Long Beach, CA; Alianza Contra el Asma Pediatrica en Puerto Rico, San Juan, PR; King County Asthma Forum, Seattle, WA; and DC Asthma Coalition, Washington, DC.

The Allies Against Asthma program received 253 letters of intent in response to the call for proposals released in late fall 1999. The receipt of so many proposals was a clear indication of the growth of local mobilization efforts to improve asthma care for children. During 2000, the program conducted an intensive review process. A select number of communities were invited to submit full proposals, and a portion of those communities participated in site visits. A national advisory committee of experts in the asthma and coalition fields reviewed the proposals, conducted site visits, and provided final funding recommendations to the Foundation.

The RWJF's Allies Against Asthma program looks forward to working with the NHLBI/NAEPP coalition initiative in exchanging information, sharing experiences, supporting local efforts, and disseminating findings. The complementary programs provide a unique opportunity to explore the benefits of the coalition approach to improving asthma care. The National Program Office of the Allies Against Asthma program is housed at the University of Michigan School of Public Health. For more information, please contact asthma@umich.edu or visit the Web site at

http://www.asthma.umich.edu.

2001 CLINICAL FOCUS ON ASTHMA, ALLERGY, AND RESPIRATORY INFECTIONS

The American Academy of Family Physicians (AAFP) launched its Annual Clinical Focus (ACF) 2001 on Asthma, Allergy, and Respiratory Infections at its Scientific Assembly in Dallas in September. The ACF is an AAFP educational initiative designed to bring state-of-the-art information about a specific medical practice problem to family physicians. ACF elements include lectures and courses, a video CME program, a monograph, and patient education handouts. The newest ACF was

developed in cooperation with the NHLBI, the American Lung Association, the National Institute of Allergy and Infectious Diseases, and the American Thoracic Society. In the past 3 years, the AAFP has sponsored similar efforts on mental health, diabetes, and cardiovascular disease.

Surgeon General Dr. David Satcher stressed the seriousness of the asthma epidemic during his address at the AAFP's Scientific Assembly. He commended the organization for the ACF on Asthma, Allergy, and Respiratory Infections, saying, "I don't have to tell you that asthma is an area in which we are struggling for answers." Dr. Satcher noted that the number of Americans afflicted with asthma has doubled in the last 15 years, and that the number of children younger than 5 years of age with asthma has tripled since 1980.

"The most important role for those of us who are family physicians— especially you who are on the front lines taking care of patients every day—is to make sure patients are getting the kind of management that we know is effective," Dr. Satcher told the assembly, adding, "The NHLBI's EPR-2 guidelines are key to this effective treatment and management."

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Information on Free Asthma Medications for Indigent Patients

"How To Obtain Free Asthma and Allergy Medications for Indigent Patients" can be found at the Web site of the American Society of Health-System Pharmacists (ASHP) at http://www.ashp.org/
public/news/breaking/asthma.html. Forty-five drugs are listed alphabetically, with information on the manufacturers, whom to contact, who initiates a request, the health provider's role, the patient's role, and how the drugs are dispensed. The information was compiled by University of Florida pharmacy students as part of ASHP's observance of World Asthma Day. The information was current as of February 2000.

("Partnership Activities" continued from page 11)

STUDY EXAMINES THE COSTS OF ASTHMA IN AMERICA

A study sponsored by the Asthma and Allergy Foundation of America (AAFA) indicates that the costs of asthma care increased 54 percent over a recent 10-year period. "Trends in the Cost of Illness for Asthma in the United States, 1984-1994" was published in the *Journal of Allergy and Clinical Immunology* 2000;106(3):93-9.

The study found that the total costs of dealing with asthma were \$10.7 billion in 1994, up from an estimated \$4.5 billion in 1984 (or \$7 billion when adjusted to 1994 dollars). Indirect costs (workdays lost, time lost from school, and costs attributed to asthma deaths) for 1994 were estimated at \$4.64 billion, a 133 percent increase. Direct medical costs (hospitalizations, doctors' visits, and medications) rose from \$5 billion in 1985 to just over \$6 billion in 1994. Expenditures for asthma medications rose 30 percent during this period, from \$1.4 billion in 1985adjusted dollars to about \$2.5 billion in 1994. The total number of prescriptions rose by 103 percent.

A media briefing was held in Washington, DC, in September to

discuss the study results. "We feel this study clearly indicates that many people are not getting the advanced care they need to control their asthma," said the study's lead author, Dr. Kevin Weiss, who was with the Rush Primary Care Institute in Chicago. He noted that anti-inflammatory medications represented less than 10 percent of all prescriptions for asthma patients in 1994.

Surgeon General Dr. David Satcher responded to the study findings by calling on asthma advocacy and research groups to identify remedies for the growing burden on patients and the Nation's health care system. AAFA agreed to convene a task force of health care organizations and professional societies to analyze the dramatic rise in asthma care costs. Dr. Steve Sesterhenn, president of AAFA's Board of Directors, said that this task force—the Asthma Leadership Council-will offer recommendations about how the health care system might provide better access and treatment, and will also review the recognized need for a nationwide health-tracking system to identify the reasons for the increase in asthma.

The media briefing also featured an appearance by the rap artist Coolio, who will appear in an AAFA public service announcement aimed at

> urban, minority youth. Coolio spoke about his own struggles with asthma and urged young asthma patients to follow some simple steps to control their conditions.

The study of asthma costs was based on data from the National Center for Health Statistics. For online data on asthma costs for all 50 states and for counties with populations exceeding 100,000, see http://www.aafa.org/highcosts.

FOCUS ON CHILDREN AND ASTHMA

The Web site of the American Academy of Allergy, Asthma, & Immunology (AAAAI) offers the following information on children and asthma for parents and health care professionals.

- "Pediatric Asthma: Promoting Best Practice Guide for Managing Asthma in Children" is available at http://www.aaaai.org/ professional/initiatives/ pediatricasthma.stm. This guide was produced through a joint effort by the AAAAI and the NAEPP.
- In September, AAAAI's topic of the month was "Back to School with Allergies and Asthma." The Web site offers the NHLBI's checklist, "How Asthma-Friendly Is Your School?" as well as a 2page School Management Plan.
- Web-based "Just for Kids" materials are offered through AAAAI's patient/public resource center.
 The materials can be accessed at http://www.aaaai.org/public/default.stm.
 - Growing Up With Asthma. A first-person account by Kurt Grote, who tells how a "sick kid" became a swimmer and a 1996 Olympic gold medalist.
 - All About Asthma. This book tells the story of Tonya, who has asthma, and how she uses her doctor's advice to keep her asthma under control.
 - Coloring Book. Superheroes Dr. Al Lergist and his partners fight the "bad guys" like Darth Mite and help kids feel better when their allergies or asthma bother them. Kids can click on nine pictures and print them out for coloring while learning to take care of their asthma. The characters also give audio messages.



At the AAFA press conference on the high cost of asthma, rap artist Coolio shows his asthma inhaler and discusses his experiences with asthma as a youth as U.S. Surgeon General Dr. David Satcher looks on.

Photo: John Harrington.

Asthma Guidelines: An Update on Selected Issues

Plans are under way to update the Expert Panel Report-2: Guidelines for the Diagnosis and Management of Asthma (EPR-2), which was released in 1997. NAEPP/GINA Science-Base Committees convened in April 1999 to identify key topics from the EPR-2 that may require updating. These topics were developed into the following questions:

- 1. For patients with mild persistent or moderate asthma, does the duration of asthma prior to starting long-term therapy have an effect on long-term outcomes?
- 2. What is the evidence that chronically inhaled steroids improve long-term outcomes for children with mild-to-moderate asthma?

- 3. Does treatment with antibiotics for an acute exacerbation of asthma improve patient outcomes, as compared to standard care without antibiotics?
- 4. What is the evidence concerning the long-term adverse effects of inhaled steroids in children?
- 5. In patients with moderate asthma who are receiving inhaled corticosteroids, what is the evidence that treatment with additional agents improves patient outcomes?
- 6. What is the evidence that the use of peak flow monitoring improves outcomes, as compared to optimal medical management without peak flow meter use?

7. What is the evidence that written asthma action plans improve outcomes as compared to optimal medical management without a written action plan?

These questions are currently being studied by an Evidence Practice Center, one of 12 centers established by the Agency for Healthcare Research and Quality to promote evidence-based practice by developing evidence reports and technology assessments based on rigorous, comprehensive syntheses and analyses of relevant scientific literature. The Evidence Practice Center's recommendations for updating EPR-2 will be published in 2001.

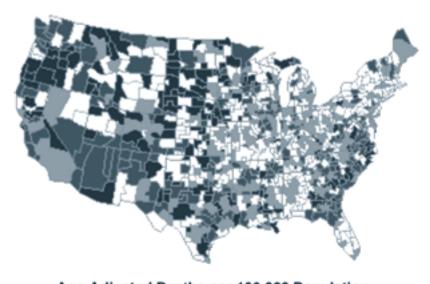


AsthmaFacts

AREAS WITH THE HIGHEST ASTHMA MORTALITY: WHERE DOES YOUR COMMUNITY STAND?

This map shows the 100 Health Service Areas (HSAs) with the highest asthma mortality in the country. An HSA is a single county or cluster of contiguous counties that is relatively self-contained with respect to routine health care.

The map can be accessed at http://hin.nhlbi.nih.gov. Click on Respiratory, then Resources, then Asthma Mortality Maps. Visitors to the Web site can use the map to link to additional information about each HSA.



Age-Adjusted Deaths per 100,000 Population

< 1.1 1.1-1.5 1.5-1
1.9-2.6 2.6+

AsthmaScience

NHLBI STUDY SHOWS THAT INHALED STEROIDS ARE SAFE AND EFFECTIVE FOR CHILDREN WITH ASTHMA

Inhaled corticosteroids are safe and effective for the long-term treatment of children with mild-to-moderate asthma, according to the Childhood Asthma Management Program (CAMP), a 5-year, eight-center study funded by the NHLBI. The study appears in the New England Journal of Medicine 2000;343(15):1054-63.

CAMP is the longest and largest controlled study of treatments for childhood asthma to date. It showed that inhaled corticosteroids provide superior asthma control. Their only side effect was a temporary one—a small reduction in the children's rate of growth observed just in the first year of treatment. The inhaled corticosteroids significantly reduced airway hyperresponsiveness, the heightened sensitivity in the airways that leads to asthma symptoms following exposure to certain irritants and allergens. However, their use did not result in the anticipated improvements in measures of lung function.

"Although asthma experts around the world have recognized the effectiveness of inhaled corticosteroids in treating asthma, their long-term effects in children were not clear, and questions have been raised about their possible effects on growth," said NHLBI Director Dr. Claude Lenfant. "CAMP confirms their effectiveness while providing reassuring evidence about their safety. We hope these results will convince more physicians, and parents as well, that treating children with mild-to-moderate asthma with inhaled corticosteroids will result in better asthma control and improved quality of life."

CAMP involved more than 1,000 children ages 5-12 with mild-to-moderate asthma. The children were randomly assigned to receive either budesonide, an inhaled corticosteroid; nedocromil, a nonsteroid anti-inflammatory medication; or a placebo. All children were also provided with a beta-agonist for use, as needed, to relieve symptoms.

CAMP showed that the inhaled corticosteroid provided superior asthma control. Compared with children on placebo, children treated with the steroid had 45 percent fewer urgent care visits; 43 percent fewer hospitalizations; 45 percent less use of oral steroids, which are used to treat severe exacerbations; 30 percent fewer days in which additional asthma medication was needed; and 22 percent more episode-free days.

The nedocromil group had 27 percent fewer urgent care visits and 16 percent less use of oral steroids, compared with the group on placebo, but there was no difference between the nedocromil and placebo groups in hospitalizations, use of additional medications, or episode-free days.

The only side effect from the inhaled corticosteroids was a slight, but temporary, reduction in growth rate. In the first year of the study, the average increase in height in the children treated with budesonide was about threeeighths of an inch less than that of the other children. However, after the first year and throughout the remaining 4 years of the study, the children on budesonide grew at the identical rate as the other children. Wrist x rays taken at the end of the study suggest that the adult height of these children will be the same as that of the children taking nedocromil or placebo. A second study-New England Journal of Medicine 2000;343(15):1064-9—followed children with asthma into adulthood and found that those who received long-term treatment with budesonide attained normal adult height.

Said Dr. Lenfant, "CAMP provides scientific evidence regarding the long-term effectiveness and safety of inhaled corticosteroids for children. Physicians, other health care professionals, and parents should feel comfortable using them to help children with mild-to-moderate asthma participate fully in childhood activities."

The complete NHLBI press release on this study is available online at http://www.nhlbi.nih.gov.

Tools for Schools

The U.S. Environmental Protection Agency (EPA) has produced the Indoor Air Quality (IAQ) Tools for Schools Action Kit to help school personnel identify, solve, and prevent indoor air quality problems in the school environment. The kit includes a 19-step management plan, checklists, a coordinator's guide, information for staff, a guide for health professionals, and a 30-minute video. A booklet, IAQ Tools for Schools: Managing Asthma in the School Environment, describes 10 ways to manage asthma in the school environment. These materials can be downloaded from the EPA's Web site, http://www.epa.gov/iaq.



Promoting Health Communications: Media Tips

Does your asthma program need publicity? What kinds of stories are most likely to get published? How can you get coverage in newspapers or on radio or television? How do you approach the media? At the Coalition Contractors first meeting, Ms. Toni Delacorte of Ogilvy Public Relations Worldwide (an NHLBI contractor) presented the basics on how to work with the media. Some of her main points are summarized below.

WHAT'S NEWS?

News stories usually fall in four categories: (1) something happened, (2) things you didn't know, (3) victim's news, and (4) news you can use.

Elements of a good news story are timeliness; its importance to a large number of people; human interest; and interesting facts and statistics. Sample story ideas include:

- The growing incidence of asthma is a medical mystery.
- Asthma is out of control in (name of city), and here's what one local organization is doing about it.
- A disturbing trend—undiagnosed asthma among African Americans.

DEVELOP A MEDIA PLAN

Identify goals. What are the best strategies for reaching people? What do you want them to know? What actions do you want them to take? Identify audiences you want to reach. What media do they use?

- Develop appropriate messages for each target audience. What are the actions you want people to take? What are the benefits of taking these actions?
- Compile a media list, using a media directory available at most public libraries.
- Produce materials for a press kit. Include how asthma affects the local community, how many have asthma, who the local experts are.
- Write a media advisory (one page describing the event and inviting the media) and a press release (a mininews story).
- Construct a timetable of outreach events and activities.
 How far in advance do you need to prepare? What are local media deadlines?
- Add an evaluation component. How will you determine whether you have been successful?

GET TO KNOW YOUR MEDIA ENVIRONMENT

- Become familiar with local news media. Pay specific attention to reporters who have covered stories related to asthma or other health issues. Don't overlook sports newsletters, publications for seniors and for minority groups, and radio and television public affairs shows.
- Call local media outlets and ask who covers health.
 Find out who does local cable programming and contact their news and public affairs programs.
- Contact local health reporters. Tell them what you're
 doing and ask if they are interested in working with you
 on a local story. Build a relationship; become a trusted
 resource. Work with them to develop a feature story.
- Invite reporters to cover events. List events in community calendars in local media. Special events, such as World Asthma Day or town meetings, are opportunities to make news and can provide a visual context for a TV interview.
- Partner with other organizations, such as a local sports team or local chapters of the American Lung Association, Asthma and Allergy Foundation of America, and Allergy and Asthma Network/Mothers of Asthmatics. Partner with the media for special events (e.g., by cosponsoring a "run" for asthma).
- Identify a local respiratory specialist willing to talk to the media. Place the spokesperson on talk shows.

EVALUATION

- · Establish baseline measurements.
- Ask whether the objectives and/or audiences were reached.
- Track phone calls and other responses, the number of mentions in the news, the number of impressions (people reached).



New at the NHLBI Health Information Center

Two new checklists for parents and school and child-care staff help them determine how well their schools and childcare settings assist children with asthma. How Asthma-Friendly Is Your School? and How Asthma-Friendly Is Your Child-Care Setting? are both also available in Spanish, and both are accompanied by a list of organizations that can offer help in making asthma-friendly changes in the facility.

These new publications are available only on the NHLBI Web site. Go to http://www.nhlbi.nih.gov/about/naepp/index.htm and click on Schools/Child Care.

See pages 17 and 18 for a reproducible copy of the childcare setting checklist. ■

("Asthma Coalition" continued from page 8)

and special guest speakers to address specific topics of interest to the coalitions. These events will be announced and open to health care providers and the broader network of community asthma coalitions. "Town meetings" are being planned to take place within the coalitions' local communities. Stay tuned for more information about these events in future editions of *AsthmaMemo*.

The coalition contracts are developing innovative model programs for improving asthma care and bringing information about how to treat and control asthma to the people who need it most. The coalition activities are the first step in a broader plan to build a network of coalitions in high-risk communities who will work together towards achieving the HP 2010 goals of eliminating racial and ethnic disparities in health care.

To obtain more information about the asthma coalition projects, visit the NHLBI HP 2010 Gateway at http://hin.nhlbi.nih.gov. Click on Respiratory, Resources, NAEPP Coalition Network, and NAEPP Coalition Contract Awardees.

("Partnership Activities" continued from page 12)

- Tim and Moby Explain Asthma. An online video program about asthma.
- Poster Contest. Displays winning posters from AAAAI's annual "How I Live With Managed Asthma" poster contest for young people in three age categories: 5-9, 10-13, and 14-17.
- Puzzles. The "Allergy and Asthma Word Search" and the "Big Bad Roach Maze" challenge kids to use their skills.
- Survey. Young people can fill out the "How I Deal with My Asthma and Allergies at School Survey" and submit it to the AAAAI.

The Web site of the AAAAI can be accessed at http://www.aaaai.org.

Allergy and Asthma Network/Mothers of Asthmatics, Inc.

The Allergy and Asthma Network/Mothers of Asthmatics, Inc. (AAN/MA) is a nationwide, community-based, nonprofit organization dedicated to eliminating morbidity and mortality due to asthma and allergies through education, advocacy, community outreach, and research. The

AAN/MA publishes *Allergy & Asthma Health*, a quarterly magazine, as well as *THE MA REPORT*, a newsletter that provides practical medical news and family support. A special issue of *THE MA REPORT* on corticosteroids describes how these medications fit into the treatment plan for children with asthma and/or rhinitis. These and other resources can be found at http://www.aanma.org.



SOME UPCOMING MEETINGS IN 2001

- American Thoracic Society: May 18-23, San Francisco, California
- The 3rd Triennial World Asthma Meeting: July 13-15, Chicago, Illinois
- American Academy of Pediatrics: October 20-24, 2001, San Francisco, California
- American College of Chest Physicians: November 4-8, Philadelphia, Pennsylvania
- American College of Allergy, Asthma, and Immunology: November 16-21, Orlando, Florida



National Heart, Lung, and Blood Institute National Asthma Education and Prevention Program School Asthma Education Subcommittee

How Asthma-Friendly Is Your Child-Care Setting?

Children with asthma need proper support in child-care settings to keep their asthma under control and be fully active. Use the questions below to find out how well your child-care setting assists children with asthma:

⊥ Yes	∟ No	1. Is your child-care setting free of tobacco smoke at all times?
☐ Yes	☐ No	2. Is there good ventilation in the child-care setting? Are allergens and irritants that can make asthma worse reduced or eliminated? Check if any of the following are present:
		☐ Cockroaches
		Dust mites (commonly found in humid climates in pillows, carpets, upholstery, and stuffed toys)
		☐ Mold
		Pets with fur or feathers
		Strong odors or fumes from art and craft supplies, pesticides, paint, perfumes, air fresheners, and cleaning chemicals
☐ Yes	☐ No	3. Is there a medical or nursing consultant available to help child-care staff write policy and guidelines for managing medications in the child-care setting, reducing allergens and irritants, promoting safe physical activities, and planning field trips for children with asthma?
☐ Yes	☐ No	4. Are child-care staff prepared to give medications as prescribed by each child's physician and authorized by each child's parent? May children carry their own asthma medicines when appropriate? Is there someone available to supervise children while taking asthma medicines and monitor correct inhaler use?
☐ Yes	☐ No	5. Is there a written, individualized emergency plan for each child in case of a severe asthma episode (attack)? Does the plan make clear what action to take? Whom to call? When to call?
☐ Yes	☐ No	6. Does a nurse, respiratory therapist, or other knowledgeable person teach child-care staff about asthma, asthma management plans, reducing allergens and irritants, and asthma medicines? Does someone teach all the children about asthma and how to help a classmate who has it?
☐ Yes	☐ No	7. Does the child-care provider help children with asthma participate safely in physical activities? For example, are children encouraged to be active? Can children take or be given their medicine before exercise? Are modified or alternative activities available when medically necessary?

If the answer to any question is "no," children in your child-care setting may be facing obstacles to controlling their asthma. Uncontrolled asthma can hinder a child's attendance, participation, and progress in school. Child-care staff, health professionals, and parents can work together to remove obstacles and promote children's health and development.

Contact the organizations on the other side of this handout for information about asthma and helpful ideas for making school policies and practices more asthma-friendly. Federal and State laws are in place to help children with asthma.

Resource Organizations for Parents and School Staff

National Asthma Education and Prevention Program

Telephone: (301) 592-8573 Internet: http://www.nhlbi.nih.gov

Materials include:

• Managing Asthma: A Guide for Schools

• Asthma Awareness Curriculum for the Elementary

Asthma and Physical Activity in the School

• Making a Difference: Asthma Management in the School (video)

• *How Asthma-Friendly Is Your Child-Care Setting?* (checklist)

Allergy and Asthma Network/Mothers of Asthmatics, Inc.

Telephone: (800) 878-4403 or (703) 641-9595

Internet: http://www.aanma.org

Materials include:

• Breathing Easy with Child Care (booklet)

• School Information Package

American Academy of Allergy, Asthma, and Immunology*

Telephone: (800) 822-ASMA or (414) 272-6071

Internet: http://www.aaaai.org

American Academy of Pediatrics

Telephone: (800) 433-9016 or (847) 228-5005

Internet: http://www.aap.org

Materials include:

• Caring for Our Children: Health and Safety Guidelines for Child Care (book)

American Association for Respiratory Care*

Telephone: (972) 243-2272 Internet: http://www.aarc.org

American College of Allergy, Asthma, and Immunology*

Telephone: (800) 842-7777 or (847) 427-1200

Internet: http://allergy.mcg.edu

American Lung Association

Telephone: (800) LUNG-USA Internet: http://www.lungusa.org

Materials include:

• A is for Asthma (Sesame Street video)

Asthma and Allergy Foundation of America

Telephone: (800) 7-ASTHMA or (202) 466-7643

Internet: http://www.aafa.org

Materials include:

• Asthma and Allergy Essentials for Child Care Providers (training program)

Healthy Kids: The Key to Basics

Educational Planning for Students With Asthma and

Other Chronic Health Conditions Telephone: (617) 965-9637 E-mail: erg_hk@juno.com

Materials include:

• Including Children with Chronic Health Conditions: Nebulizers in the Classroom

National Institute of Allergy and Infectious Diseases

Office of Communications and Public Liaison

Internet: http://www.niaid.nih.gov Telephone: (301) 402-1663

U.S. Department of Education

Office for Civil Rights, Customer Service Team Telephone: (800) 421-3481 or (202) 205-5413 Internet: http://www.ed.gov/offices/OCR

U.S. Environmental Protection Agency*

Indoor Environments Division Telephone: (202) 564-9370

Indoor Air Quality Information Clearinghouse

Telephone: (800) 438-4318 Internet: http://www.epa.gov/iaq

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^{*}Organizations that can assist you in Spanish.



National Heart, Lung, and Blood Institute Order Form

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AsthmaMemo is a National Heart, Lung, and Blood Institute (NHLBI) publication for health professionals working in disciplines and settings related to cardiovascular health.

AsthmaMemo provides updates from the NHLBI on asthma research and education activities and informs readers of new NHLBI products and community activities concerning the diagnosis and management of asthma. Readers are urged to submit information on current treatment and prevention activities as well as research findings and activities.

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